

AMENDMENTS TO THE CLAIMS

1. (canceled)

2. (canceled)

3. (canceled)

4. (currently amended) ~~The method of claim 2 further comprising~~ A method for controllably clamping an end of one hollow member to an end of a second hollow member, the members having substantially identical interior surfaces at each end, each interior surface including a clamping surface extending from the interior surface, the method comprising:

placing, at the ends of said members, a split ring having an outside diameter and two ends, and a closed state where the ends of said ring are adjacent and the outside diameter of said split ring is less than a minimum inside diameter of said members at their ends, the split ring having a V-shaped rim with two spaced projecting surfaces, wherein the split ring is relaxed in the closed state and is elastically deformed when the ends of the ring are separated;

separating the ends of the split ring until the rim engages the inside of said hollow members with one spaced projecting surface in contact with the clamping surface of one member and the other spaced projecting surface in contact with the clamping surface of the other member;
providing a spreader to keep the ends of the ring separated; and,

controllably destroying the spreader, thereby permitting the ring to return to the closed state so the members are no longer clamped together.

5. (original) The method of claim 4 further comprising explosively destroying the spreader.

6. (original) The method of claim 5 wherein said step of explosively destroying the spreader comprises detonating a linear shaped charge adjacent the spreader.

7. (original) The method of claim 6 wherein the spreader has a pair of parallel spaced legs that engage holes in each end of the ring, and the step of explosively destroying the spreader further comprises severing each leg with a linear shaped charge adjacent the leg.

8. (original) The method of claim 4 further comprising mechanically destroying the spreader.

9. (original) The method of claim 8 wherein the spreader has a pair of parallel spaced legs that engage holes in each end of the ring, and the step of mechanically destroying the spreader further comprises severing each leg with an explosively actuated bolt cutter adjacent the leg.

10. (canceled)

11. (canceled)

12. (currently amended) ~~The internal V-clamp of claim 11 wherein~~ An internal V-clamp for holding two hollow members having abutted ends, the members having substantially identical inside dimensions, and each member having a clamping surface extending from an interior surface adjacent each abutted end, said clamp comprising:

a split ring having an outside diameter and two ends and a relaxed closed state where the ends of said ring are adjacent and the outside diameter of said split ring is less than a minimum inside diameter of said members at their abutted ends, said split ring having a V-shaped rim with two spaced projecting surfaces, and each of the two ends of said split ring having a hole, the holes in the two ends being parallel;

a spreader for holding said split ring in an elastically stretched position such that said ring rim is pressed tightly against the interior surfaces of said members with one projecting surface being in contact with the clamping surface of one member and the other projecting surface being in contact with the clamping surface of the other member, the spreader comprising,

a spreader body;

a pair of parallel legs sized to fit in the holes in the ends of the split ring and extending from said spreader body, said legs being

spaced apart a distance equal to the distance between the
holes in the ends of the split ring when said ring is in the
stretched position; and,

each spreader-leg further comprises a set screw in a transverse
hole through the leg, wherein said set screw may be
tightened against the ring to increase the force of the ring
against the clamping surfaces.

13. (currently amended) ~~The internal V-clamp of claim 11 further comprising~~ An internal
V-clamp for holding two hollow members having abutted ends, the members having
substantially identical inside dimensions, and each member having a clamping surface
extending from an interior surface adjacent each abutted end, said clamp comprising:

a split ring having an outside diameter and two ends and a relaxed closed state

where the ends of said ring are adjacent and the outside diameter of said
split ring is less than a minimum inside diameter of said members at their
abutted ends, said split ring having a V-shaped rim with two spaced
projecting surfaces, and each of the two ends of said split ring having a
hole, the holes in the two ends being parallel;

a spreader for holding said split ring in an elastically stretched position such that

said ring rim is pressed tightly against the interior surfaces of said
members with one projecting surface being in contact with the clamping
surface of one member and the other projecting surface being in contact
with the clamping surface of the other member, the spreader comprising,

a spreader body;

a pair of parallel legs sized to fit in the holes in the ends of the split
ring and extending from said spreader body, said legs being
spaced apart a distance equal to the distance between the
holes in the ends of the split ring when said ring is in the
stretched position; and,

a controllable leg-cutter for cutting each leg of the spreader.

14. (original) The internal V-clamp of claim 13 wherein said leg-cutter comprises a linear shaped charge extending across said leg at a location between said ring and said spreader body.

15. (original) The internal V-clamp of claim 14 further comprising a slit through a portion of said leg adjacent said linear-shaped charge, said slit being in compression when said spreader is engaged with said ring.

16. (currently amended) The internal V-clamp of claim 13 wherein said leg-cutter is affixed to ~~said second member~~ one of said members.

17. (currently amended) The internal V-clamp of ~~claim 10~~ claim 13 wherein said clamping surface is on a flange of said hollow member.

18. (currently amended) The internal V-clamp of ~~claim 10~~ claim 13 wherein said clamping surface is on a groove in said interior surface of said hollow member.

19. (currently amended) The internal V-clamp of ~~claim 18~~ claim 13 further comprising a shoulder affixed to ~~said second member that is~~ one of said members, said shoulder being parallel to and spaced from an inside surface of said ring, said shoulder keeping said ring centered in the members after said ring is in its relaxed state.

20. (new) A method for controllably clamping an end of one hollow member to an end of a second hollow member, the members having substantially identical interior surfaces at each end, each interior surface including a clamping surface extending from the interior surface, the method comprising:

placing, at the ends of said members, a split ring having an outside diameter and two ends, and a closed state where the ends of said ring are adjacent and the outside diameter of said split ring is less than a minimum inside diameter of said members at their ends, the split ring having a V-shaped rim with two spaced projecting surfaces, wherein the split ring is relaxed in the closed state and is elastically deformed when the ends of the ring are separated;

separating the ends of the split ring until the rim engages the inside of said hollow members with one spaced projecting surface in contact with the clamping surface of one member and the other spaced projecting surface in contact with the clamping surface of the other member;

providing a spreader to keep the ends of the split ring separated, the spreader comprising one or more selected from the group consisting of an explosively removable spreader, an explosively severed spreader, an explosively destroyed spreader, a mechanically severed spreader, and a mechanically destroyed spreader.